

STUDIJŲ KOKYBĖS VERTINIMO CENTRAS

Vilniaus Gedimino technikos universiteto MIESTŲ PLANAVIMO IR INŽINERIJOS (62602T103, 621H27001) STUDIJŲ PROGRAMOS VERTINIMO IŠVADOS

EVALUATION REPORT OF URBAN PLANNING AND ENGINEERING (62602T103, 621H27001) STUDY PROGRAMME

At Vilnius Gediminas Technical University

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Išvados parengtos anglų kalba Report language - English

DUOMENYS APIE ĮVERTINTĄ PROGRAMĄ

Studijų programos pavadinimas	Miestų planavimas ir inžinerija
Valstybinis kodas	62602T103, 621H27001
Studijų sritis	Technologijos mokslų
Studijų kryptis	Statybos inžinerija
Studijų programos rūšis	Universitetinės studijos
Studijų pakopa	Antroji
Studijų forma (trukmė metais)	Nuolatinė (2), ištestinė (2,5)
Studijų programos apimtis kreditais	112
Suteikiamas laipsnis ir (ar) profesinė	Urbanistinės inžinerijos magistras
kvalifikacija	
Studijų programos įregistravimo data	2010-01-18, V-76

INFORMATION ON EVALUATED STUDY PROGRAMME

Title of the study programme	Urban planning and engineering
State code	62602T103, 621H27001
Study area	Technological Sciences
Study field	Civil Engineering
Kind of the study programme	University studies
Cycle of studies	Second
Study mode (length in years)	Full-time (2), part time (2.5)
Scope of the study programme in credits	112
Degree and (or) professional qualifications	Master in Urban Engineering
awarded	
Date of registration of the study programme	2010-01-18, V-76

Studijų kokybės vertinimo centras ©

The Centre for Quality Assessment in Higher Education

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I. INTRODUCTION

This report presents the findings of an evaluation of the programme *Miestų planavimas ir inžinerija* (62602T103, 621H27001), referred to in English as the programme *Urban planning and engineering*. The report is based on an analysis of the document "Vilnius Gediminas Technical University, Civil Engineering Study Programmes, Urban Planning and Engineering, Summary of Self Assessment 2012", associated annexes and information gathered by the Review Team during a site visit to Vilnius Gediminas Technical University (VGTU) on 23 October 2012.

The site visit included:

- discussions with senior faculty administration staff,
- discussions with staff responsible for preparation of Self- Evaluation Report (SER),
- discussions with teaching staff,
- discussions with students,
- discussions with alumni,
- discussions with employers of recent graduates of the programme,
- inspection of student coursework including final year projects,
- inspection of teaching premises and equipment including library, laboratories, auditoria, and computing.

The two year full-time Urban Planning and Engineering programme, leading to a Master of Urban Engineering, is designed to develop specialists in planning, building on their undergraduate education in construction engineering, architecture, town and country planning study fields.

The programme has been running since 2010, with an average enrolment of 10. The programme has not been assessed before.

II. PROGRAMME ANALYSIS

1. Programme aims and learning outcomes

1.1. Clarity of programme aims and outcomes

The programme is aimed at bachelor degree graduates of construction engineering, architecture, town and country planning, who wish to specialise in urban planning, described in the SER as 'urban engineering'. The aims are centred on four objectives, in compliance with the requirements of Qualification Level 7 of the Description of Lithuanian Qualifications Framework (No. 56-2761, 2010). These are deepening of knowledge, understanding in selected aspects, development of general competences and development of specialist competences. The specific application of these four objectives to this programme is clearly set out in the SER. General competences include acquiring skills in independent research and ethical decision-making. Specialist competences include problem solving skills in the context of urban engineering systems and urban territorial planning, together with competence in use of G.I.S. software tools. These aims, centred on the four objectives of the Framework Description, are clearly articulated.

The programme aims are clearly articulated within the context of 'urban engineering'. Nevertheless it is important to have a clear distinction between this planning course and those in other study fields that embrace the planning branch of study (social science and architectural specialisations). To strengthen this distinction the 'special skills' part of the learning outcomes needs to be clarified in a more specific manner.

1.2. Rationale of the need for the programme

The need for specialists with a degree in planning is clear and typically specialists in planning are educated through a master's degree programme in planning such as this one. The programme meets the principles of planning study programmes set out by the European Planning Schools Association and offered internationally – for example those identified in the SER include masters degree programmes in Environmental Planning and Town Renovation (both Liverpool John Moore University), Urban Planning and Management (Aalburg University), Town and Country Planning (Berlin Technical University).

The master's degree programme in Urban Planning and Engineering at VGTU is the only such postgraduate programme in Lithuania. It is distinct from social sciences programmes in planning and programmes that prepare architectural specialists in the field. Its ethos is to educate urban engineering specialists. Such a specialisation is required in the labour market, thus the rationale for the programme is clear.

1.3. Appropriateness of level of studies and the level of qualifications

The learning outcomes are informed by the competences prescribed for urban planning specialists. The depth of knowledge requirements and the skills in independent research and ethical decision-making are consistent with masters degree studies, especially in the context of the national framework descriptors for Lithuanian Qualifications Level 7 programmes.

The aims and learning outcomes are informed by four objectives – knowledge, understanding, general competences and specialist competences. The Expert Review Group found that the balance between the general competences and specialist competences was appropriate (in the curriculum) but this was not adequately reflected in the breakdown of outcomes provided in the SER. The 'special skills' part of the learning outcomes needs to be clarified to emphasize the urban engineering specialization.

1.4. Compatibility of programme outcomes, content and qualifications

The programme name, learning outcomes, content and the qualifications offered are compatible but require clearer distinction from other planning programmes at masters degree level, specifically social sciences and architectural programmes in planning. This arises because the learning outcomes are strongly biased in respect of 'planning' without the engineering aspect being obvious, despite a programme name of 'Urban Planning and Engineering'. Equally the qualification offered is 'Master in Urban Engineering', yet the programme is open to graduates who do not have an undergraduate formation in an engineering study field. While admission of such students to this programme is appropriate, it is important to clarify that the programme has been designed around the competences required for urban engineering specialists.

2. Curriculum design

2.1. Compatibility with legal requirements

The curriculum of this new programme was formulated in the context of published orders of the Ministry of Education and Science, relevant internal VGTU guidance documents and EUR-ACE. These were: "The Manual of General Requirements for Master's Study Programmes" and "Description of the Full-time and Part-time Mode of Studies" by the order of the Minister of Education and Science of the Republic of Lithuania and the Study Regulations of Vilnius Gediminas Technical University (Senate Resolution No. 22-2) and VGTU's "Manual of Master's Study Programmes and their Drawing Up Procedure" (Rector No. 193). The EUR-ACE document used was "Framework Standards for the Accreditation of Engineering Programmes". It is noteworthy that the programme meets the EUR-ACE standards in respect of engineering analysis, engineering design and engineering practice.

The programme totals 112 credits. The breakdown results in 63.4% of credits being derived from subjects of the study field. The programme includes options, which amount to 5.3% of the workload. General subjects set by the University amount to 3.6%. Thus work on the final thesis involves 31 credits, or 28% of the total. These 31 credits are derived from a combination of 22 credits in the final semester and three separate modules valued at 3 credits each.

The Expert Group note that the credit value of master's degree programmes are generally 90 for three semester programmes and 120 for four semester programmes. The design of a new programme based on 112 credits requires justification in the international context. The benefits of harmonizing with common international practice, of associating a 120 credit workload for the programme, including a 30 credit workload on the final semester's work on the thesis, is worthy of consideration.

2.2. Consistency of the study programme layout

The programme duration is two years over 4 semesters and the sequence is logical. There are 30 credits (6 modules) in the first semester, 30 credits (5 modules) in the second and third semester. The final semester is devoted to the final thesis module (valued at 22 credits) but all preceding semesters include modules (valued at 3 credits each), which inform the final thesis. Students select their final thesis topic in Semester 1 and this helps to inform their preparation of independent work on it later in the programme. The sequence of modules involves a mix of theory and practice throughout the first three semesters, which prepare the students for the final thesis work and its high independent study load.

2.3. Consistency of the subjects/modules with level of study

The curriculum is informed by the knowledge and skills appropriate to the level of the qualification. A review of the modules indicates a bias towards 'planning' modules, as opposed to 'engineering' modules but the programme ethos is distinctly based in the technological sciences and appropriately classified as 'H270' (Urban Engineering) studies. The curriculum itself is very good but more emphasis should be placed on communicating the goal of applying engineering principles and skills in tackling aspects of planning problems.

The students are prepared for their independent work on the final thesis (22 credits) by three other modules (cumulatively 9 credits). Thus it may be argued that the final thesis is based on 31 credits of work. Nevertheless internationally it is more common to allocate the final thesis a full semester workload of 30 credits. Given the fact that there is no other workload in the final semester the expectation of time devoted to the final thesis should be raised by increasing the credit value to 30 credits. This could be done in a review of other credit values to alter the programme from a 112 credit masters to 120 credits, thus making it more internationally comparable from the viewpoint of student mobility.

2.4. Consistency of the subjects/modules with learning outcomes

The sequence of modules involves a mix of theory and practice throughout the first three semesters. A module on "Fundamentals of Scientific Researches and Innovations" research skills is included in the first semester and is common for students on several civil engineering master's programmes. The sequence and content is logical and fully appropriate to match the learning outcomes.

2.5. Scope of programme

The scope is adequate but consideration could be given to enhancing the graduate attributes further by enhancing their familiarity with international and national procurement policies and procedures. This could done in collaboration with other masters degree programmes where a common module is shared by several programmes.

2.6. Currency of programme content

The programme is current, not least because the teaching is informed by active participation of the Department's staff in planning studies in Lithuania.

3. Staff

3.1. Staffing and legal requirements

The programme is staffed by 14 teachers, drawn from several departments in the Faculty of Environmental Engineering. The workload distribution meets the legal requirements with professors taking 25%, associate professors 71% and assistants accounting for 4%.

3.2. Staff qualifications

Lecturers have adequate qualifications, with all but 14% at either professor or associate professor level. The vast majority of the teaching is by full-time lecturing staff. Four members of staff have qualification certificates in respect of territorial planning. The final theses are supervised by staff from either the Department of Urban Engineering or the Department of Urban Design.

On a more general note, the percentage of teaching staff who teach in their field of academic activity is 70%. Given that it is a master's degree level programme, it would be helpful if this percentage could be increased over time.

3.3. Adequacy of staff resources

The student:staff ratio is approximately 1:1. The number of final theses per supervisor typically does not exceed two. Thus the staff resourcing is adequate. However it should be noted that there is only one professor in the study field. An increase in the number of professors in the study field would enhance the programme.

3.4. Staff turnover

The programme has just commenced in the last three years, during which time the staff turnover has been insignificant. The age profile of the staff is such that approximately half are under 40 years of age and half are over 50 years.

3.5. Staff professional development

Staff development is well supported by in-service training schemes including courses, international exchanges and academic leave. International participation is facilitated through ERASMUS exchanges and conferences and exhibitions. Most of the teaching staff on the programme from the Department of Urban Engineering have engaged in international visits in the last two years (five staff members out of six).

3.6. Research profile of staff

The staff are research active and approximate 40 papers have been published in the last five years. The staff of the three departments who are involved in delivering the programme have wide experience of involvement in international research projects. The fact that four members of staff from the Department of Urban Engineering have qualification certificates in respect of territorial planning encourages participation in live planning studies, which enhances the currency of the teaching programme.

4. Facilities and learning resources

4.1. Premises

The programme is hosted in excellent teaching facilities of the Faculty of Environmental Engineering. The facilities primarily used on the programme include auditoria, computer facilities and the library. A key facility is the Computer Technology Laboratory. The library hours are good and reading room access hours are generous. In addition to dedicated computer facilities, wireless internet access is installed and becoming more widely available in the buildings.

4.2. Teaching and learning equipment

Literature for the course has been procured by the Library, Department of Urban Engineering and the Research Institute of Territorial Planning, which assures a very good resource for the students. Software is also well supported through the computer rooms of the Department and the Research Institute, which is a major asset for the students. The equipment is in good condition and modern.

4.3. Arrangements for students' practice

The timetabled contact hours are generally in the evening to facilitate students who are already in employment. This mitigates against the organisation of field trips as part of the programme delivery. However as a counter argument to this, the fact that most students are employed in the field of study reduces the need for specific credits to be allocated for student's practice through internships for achievement of learning outcomes.

4.4. Teaching materials

The investment in books and software is very satisfactory. In addition the Library has subscriptions to many relevant electronic databases. There is regular and adequate investment in books and database subscriptions. There is a growing volume of work accessible through a portal of e-books. Significant use is made of software in the programme. There is increasing investment in VGTU in a virtual learning environment through Moodle.

5. Study process and student assessment

5.1. Admission requirements

Admission to the programme is open to bachelor degree graduates from the following programmes: construction engineering, architecture, town and country planning. Assessment grades are based on the study subjects including main and specialist subjects. The main subjects are: mathematics (9 credits), applied mechanics (9), information technology (6), physics (3), and building physics (3). The specialist subjects total 24 credits and are drawn from subjects in the planning, sustainable development, economics and urban communication fields. These admission requirements are logical.

In the short period that the programme has been running to date, the average competition score was 10.89, ranging from a low of 8.96 to a high of 11.70. Admissions numbers have been modest but the attrition rate has been high. It should be noted however that these attrition rates have been due to students voluntarily giving up their studies, rather than a weakness in the admission criteria.

5.2. Organisation of the study process

The programme is available for full-time or part-time studies. The study process is arranged to suit those in employment who wish to register to the programme as full-time students in parallel with their employment commitments. It is unsurprising therefore that no students are currently enrolled part-time.

5.3. Participation in research, artistic and applied research activities

Many students are in employment which limits opportunities to engage in university activities other than the prescribed workload of the programme. Nevertheless some contribute to research output through dissemination of their final thesis work in conferences and publications. This is facilitated through selected papers for VGTU scientific publications derived from the best students' work selected for entry to the annual young scientist's conference.

5.4. Participation in student mobility programmes

Student mobility is encouraged by VGTU through scholarships but take up is minimal, not least because most students cannot take time from employment commitments that parallel (and often support) their studies.

5.5. Academic and social support

The students have access to good sports, health and cultural facilities. The Careers Office assist with future employment. There is an active VGTU Students' Association. Most students who need accommodation rent apartments but postgraduate space is available in the dormitories if required and typically amounts to about 15% of the space. Free tuition is available to good quality students through scholarships based on merit or social circumstances. Student loans are

also available. The programme is also making use of a national mentoring scheme "LT Big Brother".

5.6. Assessment system

The assessment method is clear. Grades are determined to a 10-point scale. A formula is used for two- or three- part examinations, which cumulates the mark. Practical assignments completed during the semester can make up only up to 30% of the final exam grade. The marks for module's practical assignments completed during the semester are reckoned in only if each of them meets the minimum requirements. If during the semester a student submits properly completed module's assignments before the deadlines, the mark may be increased by up to 10%. Students get positive exam grades if their cumulative marks for the module's practical assignments completed during the semester meet the minimum requirements and the marks (or their sum) for other assignments (mid-term tests on theory, the exam during the exam session) meet the minimum requirements for a positive mark. Students who failed to complete the assignments indicated in the module's card are not admitted to take the exam during the exam session but allowance is made for students who need to resubmit failed coursework. Course projects, research papers and the final thesis are assessed by grades.

Assessment of coursework is assessed as a separate mark to the study module. It is recommended that the practice of assessing coursework as a module in itself be discontinued, unless it can be demonstrated that the learning outcomes of the coursework module cannot be met elsewhere in the curriculum. All coursework is best assessed as part of the module to which its learning outcome is most strongly allied

The final thesis is supervised by an academic from either the Department of Urban Engineering or the Department of Urban Design of the Faculty of Environmental Engineering. Assessment of the final thesis is by a Committee for Qualification Degrees. The Committee has 5 to 7 members including an academic from another institution, professional representatives and representatives from the social partners. The student's academic supervisor is also a member. The membership of the Committee is approved by the Rector.

The high proportion of marks allocated to the final written examination presents challenges for architecture graduates on the programme. This is because their assessment strategy at first cycle would have been heavily biased in favour of coursework assessment. While allowance needs to be made for different learning styles, the assessment strategy is seen as being appropriate, given that the programme is classified as being in the engineering field of study.

5.7. Graduate attributes and professional activities

The graduates are educated to take a wider view rather than focus on narrow criteria. This is somewhat different to the experience that engineering students typically have at first cycle, where there is more concentration on 'closed' problems rather than 'open' questions. The employers have indicated satisfaction with the approach and are satisfied that graduate attributes are appropriate.

6. Programme management

6.1. Programme management structure

The programme is managed by the Department of Urban Engineering of the Faculty of Environmental Engineering. Joint meetings are held by teachers on the programme, drawn from the Faculty of Environmental Engineering and Faculty of Architecture. There is a clear relationship between the roles of Head of Department, Dean, Vice Rectors and the Rector. Any proposed changes to the programme must be approved by the Study Committee of Faculty, Faculty Council and the VGTU Study Committee.

Co-ordination of the programme and co-ordination of the final work modules rest with the same individual, who is at very senior level of academic leadership. This is commendable and leads to cohesion in achievement of learning outcomes, despite the involvement of three departments. However there is no Programme Study Committee in place. There is a need for a specific Study Programme Committee.

6.2. Ongoing programme review

The University has developed a comprehensive computer-based information system 'Alma Informatika' which gathers and collates a significant amount of data on the University's programmes. Collection of student feedback is now automated at year end. The data on each subject is available to key personnel Dean, Head of Department, the lecturer concerned and a student representative.

6.3. Quality improvement implementation

The programme is still at an early stage and the first graduates completed the programme in 2011. However student surveys have been used to assure and improve quality. A discussion on the programme was held with graduates of the first cohort to assess where improvements could be made.

6.4. Stakeholder involvement

Employers are involved through invitation lectures, supervision of final thesis and chairmanship of the Commission for Qualifications. A review of the quality of the first set of final theses was conducted in collaboration with social partners. Students are members of the Faculty Council and may therefore contribute at high level to programme improvement processes, if they choose to do so. Regular meetings are held by the Vice-Deans with students – typically once per month. In addition anonymous student surveys have now gone on-line but it is speculated (in the SER) that some students are not as engaged in the process fearful that anonymity has been compromised. While anonymity is not at risk some confidence measures may be appropriate.

There is however a lack of involvement from social partners in programmes such as this one. It is recommended that an increased number of co-operation agreements with social partners be formed.

6.5. Effectiveness of internal quality assurance measures

Quality assurance is in accordance with VGTU "Regulations for Planned Internal Assessment of Study Programmes". In addition to external assessment VGTU have an internal quality assurance process which assesses each programme every 5 years. The results are considered by Faculty Council. The University is currently engaged in an international project on quality assurance and further enhancements to the quality assurance process will be rolled out in the coming year. The improvements in the programme which derived from student surveys is communicated to student representatives. This closing of the feedback loop is commendable and an enduring strength of a sustainable and effective quality assurance process.

III. RECOMMENDATIONS

- 1. The 'special skills' component of the learning outcomes needs to be clarified in a more specific manner.
- 2. The benefits of harmonizing with common international practice, of associating a 120 credit workload for the programme including a 30 credit workload on the final semester's work on the thesis, is worthy of consideration. This would entail increasing the volume of the programme from 112 ECTS credits to 120 ECTS, perhaps through increasing the final semester workload from 22 ECTS credits to 30 ECTS credits.
- 3. Consideration could be given to enhancing the graduate attributes further by enhancing their familiarity with international and national procurement policies and procedures.
- 4. The percentage of teaching staff who teach in their field of academic activity is 70%. Consideration should be given to increasing this percentage over time.
- 5. It is recommended that the involvement of professors be increased to enhance the programme.
- 6. It is recommended that the practice of assessing coursework as a module in itself be discontinued, unless it can be demonstrated that the learning outcomes of the coursework module cannot be met elsewhere in the curriculum. All coursework is best assessed as part of the module to which its learning outcome is most strongly allied.
- 7. While commending the arrangements for co-ordination of the programme and final work modules by one individual, who is at very senior academic leadership, it is recommended that further cohesion of the three departments involved in the programme be facilitated by creation of a Study Programme Committee. This could also embrace stake-holder involvement, including students and social partners.
- 8. It is recommended that an increased number of co-operation agreements with social partners be formed. These might include scholarships, guest lectures, applied research, sponsorship of equipment procurement etc. of direct benefit to the program

IV. SUMMARY

1. Programme aims and learning outcomes.

The program aims and learning outcomes are formulated according to the international requirements set for the competences of urban engineering specialists. The programme aims are well defined and based on the market needs. The leaning outcomes reflect the interdisciplinarity of the programme. More detailed description of special learning outcomes is recommended.

2. Curriculum design.

The curriculum covers the field areas of urban engineering and territorial planning. The study subjects are delivered in the adequate order and on appropriate scientific level for the master's studies. The volume of the programme and curriculum design is in compliance with the legal documents, however the program volume might be considered to be expanded from 112 ECTS to 120 ECTS. Public procurement policy and procedure knowledge is desirable for the future graduate attributes.

3. Teaching staff.

The teaching staff is competent in the field of urban planning and engineering. Staff experience in scientific research and practical experience is based on the participation in real-life national and international projects. The scientific publications and teaching materials written by the programme staff members as well as their teaching experience enable successful provision of the programme. The percentage of teaching staff who teach in their field of academic activity is 70%. Given that it is a master's degree level programme, it would be helpful if this percentage could be increased over time. Additionally, it should be noted that there is only one professor in the study field. An increase in the number of professors in the study field would enhance the programme.

4. Facilities and learning resources.

The facilities, equipment, software and teaching materials designated for the programme are suitable and adequate for the successful provision of the programme.

5. Study process and students' performance assessment.

The admission requirements and selection procedures are clear and adequate. The assessment system of the students' performance is clear, however the certain changes in the area of course works evaluation is recommended for consideration. Organisation of the study process is flexible. Student support is effective in both academic and social sphere. The graduates are successful in finding employment in their specialist areas.

6. Programme management area.

Programme management is carried out in accordance with the established procedures of the University. There is no Programme Study Committee in place. There is a need for a specific Study Programme Committee. Internal assurance of the programme quality is transparent, but the effectiveness might be increased by attempting more initiatives from the teachers, students and social partners on the programme management level.

V. GENERAL ASSESSMENT

The study programme *Urban Planning and Engineering* (state code – 62602T103, 621H27001) of Vilnius Gediminas Technical University is given **positive** evaluation.

Study programme assessment in points by evaluation areas.

No.	Evaluation Area	Evaluation Area in Points*
1.	Programme aims and learning outcomes	3
2.	Curriculum design	4
3.	Teaching staff	3
4.	Facilities and learning resources	4
5.	Study process and students' performance assessment	3
6.	Programme management	3
	Total:	20

^{*1 (}unsatisfactory) - there are essential shortcomings that must be eliminated;

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^{2 (}satisfactory) - meets the established minimum requirements, needs improvement;

^{3 (}good) - the field develops systematically, has distinctive features;

^{4 (}very good) - the field is exceptionally good.

VILNIAUS GEDIMINO TECHNIKOS UNIVERSITETO ANTROSIOS PAKOPOS STUDIJŲ PROGRAMOS *MIESTŲ PLANAVIMAS IR INŽINERIJA* (VALSTYBINIS KODAS – 621H27001, 62602T103) 2012-12-19 EKSPERTINIO VERTINIMO IŠVADŲ NR. SV4-161 IŠRAŠAS

<...>

V. APIBENDRINAMASIS ĮVERTINIMAS

Vilniaus Gedimino technikos universiteto studijų programa *Miestų planavimas ir inžinerija* (valstybinis kodas – 621H27001, 62602T103) vertinama **teigiamai**.

Eil. Nr.	Vertinimo sritis	Srities įvertinimas, balais*
1.	Programos tikslai ir numatomi studijų rezultatai	3
2.	Programos sandara	4
3.	Personalas	3
4.	Materialieji ištekliai	4
5.	Studijų eiga ir jos vertinimas	3
6.	Programos vadyba	3
	Iš viso:	20

- * 1 Nepatenkinamai (yra esminių trūkumų, kuriuos būtina pašalinti)
- 2 Patenkinamai (tenkina minimalius reikalavimus, reikia tobulinti)
- 3 Gerai (sistemiškai plėtojama sritis, turi savitų bruožų)
- 4 Labai gerai (sritis yra išskirtinė)

<...>

IV. SANTRAUKA

1. Programos tikslai ir numatomi studijų rezultatai

Programos tikslai ir studijų rezultatai yra suformuluoti pagal tarptautinius reikalavimus, taikomus miestų inžinerijos specialistų gebėjimams. Programos tikslai yra gerai apibrėžti ir grindžiami rinkos poreikiais. Studijų rezultatai atspindi programos tarpdiscipliniškumą. Rekomenduojama pateikti išsamesnį specialiųjų studijų rezultatų aprašymą.

2. Programos sandara

Programos sandara apima miestų inžinerijos ir teritorijų planavimo sritis. Studijų programos dalykai dėstomi tinkama tvarka ir atitinka magistro laipsnio studijų mokslinį lygį. Programos apimtis ir programos sandara tenkina teisinius reikalavimus, tačiau būtų verta apsvarstyti galimybę padidinti programos apimtį nuo 112 ECTS iki 120 ECTS kreditų. Pageidautina, kad absolventams būtų suteikiamos žinios apie viešųjų pirkimų politiką ir procedūras.

3. Personalas

Dėstytojai yra kompetentingi miestų planavimo ir inžinerijos srities specialistai. Akademinio personalo mokslinių tyrimų patirtis ir praktinio darbo patirtis grindžiama dalyvavimu realiuose nacionaliniuose ir tarptautiniuose projektuose. Programos dėstytojų skelbtos mokslinės publikacijos ir parengta mokymo literatūra bei jų pedagoginio darbo patirtis leidžia sėkmingai vykdyti programą. Dėstytojų, dėstančių savo akademinės srities dalyką, dalis yra 70 %. Turint galvoje, kad tai magistro laipsnio studijų programa, būtų naudinga šį skaičių laikui bėgant didinti. Be to, reikia pažymėti, kad programą dėsto vos vienas studijų krypties profesorius. Programą pagerinti padėtų didesnis studijų krypties profesorių skaičius.

4. Materialieji ištekliai

Patalpos, įranga, programinė įranga ir programai skirta mokymo literatūra yra tinkami ir pakankami sėkmingai vykdyti programą.

5. Studijų eiga ir jos vertinimas

Priėmimo reikalavimai ir atrankos procedūros yra aiškios ir tinkamos. Studentų rezultatų vertinimo sistema yra aiški, tačiau rekomenduojama apsvarstyti galimybę atlikti kai kuriuos kursinių darbų vertinimo pakeitimus. Studijų proceso organizavimas yra lankstus. Parama studentams yra veiksminga tiek akademiniu, tiek socialiniu požiūriu. Absolventai sėkmingai įsidarbina pagal specializaciją.

6. Programos vadyba

Programos vadyba vykdoma pagal universiteto nustatytas procedūras. Nėra studijų programos komiteto. Poreikis turėti specifinį studijų programos komitetą yra. Programos vidinė kokybės užtikrinimo sistema yra skaidri, bet jos efektyvumą galima būti padidinti, jei dėstytojai, studentai ir socialiniai partneriai rodytų daugiau iniciatyvos aukščiausiame programos vadybos lygmenyje.

III. REKOMENDACIJOS

- 1. Studijų rezultatų "specialiųjų gebėjimų" komponentą būtina išdėstyti konkrečiau.
- 2. Būtų vertinga apsvarstyti galimybę laikytis visuotinės tarptautinės praktikos ir studijų programos apimtį prilyginti 120 kreditų, įskaitant 30 kreditų baigiamajam darbui, kuris rašomas per paskutinį semestrą. Tokiu būdu programos apimtis padidėtų nuo 112 ECTS iki 120 ECTS kreditų, galbūt padidinant paskutinio semestro darbo krūvį nuo 22 ECTS iki 30 ECTS kreditų.
- **3.** Reiktų apsvarstyti galimybę gerinti absolventų gebėjimus suteikiant jiems daugiau žinių apie tarptautinę ir nacionalinę viešųjų pirkimų politiką ir procedūras.
- **4.** Dėstytojų, dėstančių savo akademinės srities dalyką, dalis yra 70 %. Reikėtų pagalvoti, kaip laikui bėgant šis skaičius galėtų būti padidintas.
- 5. Norint pagerinti programą rekomenduojama padidinti programoje dėstančių profesorių skaičių.
- **6.** Rekomenduojama atsisakyti kursinių darbų vertinimo kaip atskiro modulio praktikos, nebent būtų galima įrodyti, kad kursinio darbo modulio studijų rezultatų negalima pasiekti jokioje kitoje mokymo programos dalyje. Geriausia visus kursinius darbus būtų vertinti kaip to modulio, su kuriuo studijų rezultatai yra labiausiai susiję, dalį.
- 7. Pagirtina tai, kad programos koordinavimas ir baigiamųjų darbų modulių koordinavimas yra patikėtas vienam asmeniui, kuris užima aukščiausio lygio akademines pareigas, tačiau rekomenduojama suformuoti studijų programos komitetą, kuris dar labiau palengvins trijų bendradarbiaujančių katedrų sanglaudą. Šio komiteto veikloje galėtų dalyvauti ir suinteresuotosios šalys, įskaitant studentus ir socialinius partnerius.
- **8.** Rekomenduojama pasirašyti daugiau bendradarbiavimo sutarčių su socialiniais partneriais. Jos galėtų būti stipendijoms, kviestinių dėstytojų paskaitoms, taikomiesiems tyrimams, paramai įrangai įsigyti ir panašioms priemonėms, kurios duotų tiesioginės naudos programai.

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